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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,592	08/27/2001	Hideaki Shoji	213069US2	2730

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EXAMINER

PERSINO, RAYMOND B

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 10/08/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,592

Applicant(s)

SHOJI ET AL.

Examiner

Raymond B. Persino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by SCHOBER (US 4,471,493 A).

Regarding claim 1, SCHOBER discloses a foldable portable telephone having first and second casings coupled with each other via a hinge portion, comprising: first and second electronic circuit portions provided within said first and second casings, respectively; and first and second shield members for shielding said first and second electronic circuit portions, respectively, at least one of said first and second shield members additionally serving as an antenna for said portable telephone (figure 2 and column 2 line 34 to column 3 line 5).

Regarding claim 2, see the rejection of the parent claim concerning the subject matter this claim depends from. SCHOBER further discloses that said first electronic circuit portion includes a communication circuit for communicating with a base station using said second shield member as the antenna (figure 2 and column 2 line 34 to column 3 line 5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBER (US 4,471,493 A) in view of ISOHATALA et al (US 6,252,554 B1).

Regarding claim 3, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose that said second shield member includes a slit for adjusting its characteristics as the antenna. ISOHATALA et al discloses a shield member includes a slit for adjusting its characteristics as the antenna (column 2 lines 62-65). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a slit for adjusting its characteristics as the antenna. Doing so would allow for optimization of the antenna characteristics that would result in a more efficient antenna.

Regarding claim 4, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose that said second shield member includes an extended portion for adjusting its characteristics as the antenna. ISOHATALA et al discloses a shield member that includes an extended portion for adjusting its characteristics as the antenna (figure 2a and column 2 line 54 to column 3 line 24). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an extended portion for adjusting

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its characteristics as the antenna. Doing so would allow for optimization of the antenna characteristics that would result in a more efficient antenna.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBER (US 4,471,493 A) in view of an examiner's official notice.

Regarding claim 5, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose an antenna matching circuit connected between said communication circuit and said second shield member. The examiner takes official notice that it was known in the art to use an antenna matching circuit. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an antenna matching circuit. The use of an antenna matching circuit increases the efficiency of an antenna.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBER (US 4,471,493 A) in view of TAMURA (EP 0 518 526 A).

Regarding claim 6, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose a first antenna matching circuit for matching when said portable telephone is unfolded; a second antenna matching circuit for matching when said portable telephone is folded; a detector for detecting whether said portable telephone is folded; and a switching circuit operating based on a detected result of said detector, for connecting said first antenna matching circuit between said communication circuit and said second shield member when said portable telephone is unfolded, and for connecting said second antenna matching circuit between said communication circuit and said second shield member when said portable

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telephone is folded. TAMURA discloses a first antenna matching circuit for matching when said portable telephone is unfolded; a second antenna matching circuit for matching when said portable telephone is folded; a detector for detecting whether said portable telephone is folded; and a switching circuit operating based on a detected result of said detector, for connecting said first antenna matching circuit between said communication circuit and said second shield member when said portable telephone is unfolded, and for connecting said second antenna matching circuit between said communication circuit and said second shield member when said portable telephone is folded (figures 1-4 and column 3 line 27 to column 4 line 36). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the teaching of SCHOBBER to be modified per TAMURA. Having different matching circuits being used, depending on the state of the phone, allows enables the antenna to be more effectively matched.

7. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBBER (US 4,471,493 A) in view of VANNATTA et al (US 5,649,306 A).

Regarding claim 7, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBBER does not disclose an antenna mounted to said first casing and having its feeding portion connected to said communication circuit, said communication circuit communicating with said base station via said second shield member and said antenna. VANNATTA et al discloses an antenna mounted to said first casing and having its feeding portion connected to said communication circuit, said communication circuit communicating with said base station

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via said second shield member and said antenna (figures 1, 3, 4 and 6 and column 6 line 18-43). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the teaching of SCHOBER to be modified per VANNATTA et al. Having a feeding portion connected to a communications circuit allows the antenna to receive the energy to be transmitted to the base station and allows the communications circuit to receive the energy received from the base station.

Regarding claim 8, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose that the antenna is mounted to said second casing and having its feeding portion connected to said second shield member, said communication circuit communicating with said base station via said second shield member and said antenna. VANNATTA et al discloses having an antenna mounted to said second casing and having its feeding portion connected to said second shield member, said communication circuit communicating with said base station via said second shield member and said antenna (figures 1, 3, 4 and 6 and column 6 line 18-43). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for the teaching of SCHOBER to be modified per VANNATTA et al. Having a feeding portion connected to a communications circuit allows the antenna to receive the energy to be transmitted to the base station and allows the communications circuit to receive the energy received from the base station.

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8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBER (US 4,471,493 A) in view of VANNATTA et al (US 5,649,306 A) and further in view of an examiner's official notice.

Regarding claim 9, see the rejection of the parent claim concerning the subject matter this claim depends from. However, SCHOBER does not disclose an antenna matching circuit connected between said communication circuit and said second shield member. The examiner takes official notice that it was known in the art to use an antenna matching circuit. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an antenna matching circuit. The use of an antenna matching circuit increases the efficiency of an antenna.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over SCHOBER (US 4,471,493 A) in view of GUMUSSOY (GB 2,327,572 A).

Regarding claim 10, SCHOBER discloses an antenna mounted to said first casing, said communication circuit communicating with said base station via either one of said antenna and said second shield member that is connected to said communication circuit by said switching circuit (figure 2 and column 2 line 34 to column 3 line 5). However, SCHOBER does not disclose a detector for detecting whether a hand of a user of said portable telephone is touching said antenna; and a switching circuit operating based on a detected result of said detector, for connecting said communication circuit to said antenna when said user's hand is not touching said antenna, and for connecting said communication circuit to said second shield member when said user's hand is touching said antenna. GUMUSSOY discloses a detector for

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detecting whether a hand of a user of said portable telephone is touching said antenna; and a switching circuit operating based on a detected result of said detector, for connecting said communication circuit to said antenna when said user's hand is not touching said antenna, and for connecting said communication circuit to said second shield member when said user's hand is touching said antenna (page 4 line 6 to page 4 line 26). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify SCHOBER per GUMUSSOY. Using a hand detector allows the more appropriate antenna to be used.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Waldron, Rupert James (US 6266538 B1) discloses an antenna for the folding mobile telephones.

Imura, Minoru (US 5940745 A) discloses a portable transceiver having retractable antenna and matching circuit.

Thompson, David C. et al. (US 5754141 A) discloses a wireless communication device having a reconfigurable matching circuit.

Zakman, Zdravko M. (US 4876552 A) discloses an internally mounted broadband antenna.

Phillips, James P. et al. (US 4723305 A) discloses a dual band notch antenna for portable radiotelephones.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond B. Persino whose telephone number is (703) 308-7528. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Raymond B. Persino *RP*
Examiner
Art Unit 2682

RP


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
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9/30/03